

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of scTNF-L_{short}
Construct A-II

1	ATG AGA GGA TCG CAT CAC CAT CAC CAT CAC GGA TCA GCG TCG TCT	45
1	M R G S H H H H H H G S A S S	15
46	TCT TCT CGT ACC CGG TCT GAC AAA CGG GTT GCT CAC GTT GTT GCA	90
16	S S R T P S D K P V A H V V A	30
91	AAC CGG CAG GCT GAA GTT CAA CTG CAA TGG CTG AAC CGT CGT GCT	135
31	N P Q A E G Q L Q W L N R R A	45
136	AAC GCT CTG CTG GCT AAC GGT GTT GAA CTG CGT GAC AAC CAG CTG	180
46	N A L L A N G V E L R D N N Q L	60
181	GTT GTT CCG TCT GAA GGC CTG TAC CTG ATC TAC TCC CAG GTT CTG	225
61	V V P S E G L Y L I Y S Q V L	75
226	TTC AAA GGC CGG GGC TGC CCG TCC ACC CAC CAC GTT CTG CTG ACC CAC	270
76	F K G Q G C F S T H V L L T H	90
271	ACC ATC TCT CGT ATC GCT GTT TCC TAC CAG ACC AAA GTA AAC CTG	315
91	T I S R I A V S Y Q T K V N L	105
316	CTG TCT GCA ATC AAA TCT CCG TGC CAG CGT GAA ACC CCG GAA GGT	360
106	L S A I K S P C Q R E T F E G	120
361	GCT GAA GCT AAA CGG TGG TAC GAA CGG ATC TAC CTG GGT GGC GTT	405
121	A E A K P W Y E P I Y L G G V	135
406	TTT CAA CTG GAG AAA GGT GAC CGT CTG TCT GCA GAA ATT AAC CGT	450
136	F Q L E K N D R L S A E I N R	150
451	CCG GAC TAC CTG GAC TTC GCA GAA TCT GGT CAG GGT TAC TTC GGT	495
151	P D Y L D F A E S G Q V Y F G	165
496	ATC ATC GCT CTG GGT GGC GGT TCT GGT TCT GGC GGT TCT GGT GGC GGA	540
166	I I A L G G G S G G G S G G G	180
541	TCC TCT TCT CGT ACC CGG TCT GAC AAA CGG GTT GCT CAC GTT GTT	585
181	S S S R T P S D K P V A H V V	195
586	GCA AAC CGG CGG GCT GAA GGT CAA CTG CAA TGG CTG AAC CGT CGT	630
196	A N P Q A E G Q L Q W L N R R	210
631	GCT AAC GCT CTG CTG GCT AAC GGT GTT GAA CTG CGT GAC AAC CAG	675
211	A N A L L A N G V E L R D N Q	225
676	CTG GTT CGG TCT GAA GGC CTG TAC CTG ATC TAC TCC CAG GTT	720
226	L V V P S E G L Y L I Y S Q V	240
721	CTG TTC AAA GGC CGG GGC TGC CCG TCC ACC CAC GTT CTG CTG ACC	765
241	L F K G Q G C P S T H V L L T	255
766	CAC ACC ATC TCT CGT ATC GCT GTT TCC TAC CAG ACC AAA GTA AAC	810
256	H T I S R I A V S Y Q T K V N	270
811	CTG CTG TCT GCA ATC AAA TCT CCG TGC CAG CGT GAA ACC CCG GAA	855
271	L L S A I K S P C Q R E T F E	285

Figure 19A

Replacement Sheet

856	GGT GCT GAA GCT AAA CCG TGG TAC GAA CCG ATC TAC CTG GGT GGC	900
286	G A E A K P W Y E P I Y L G G	300
901	GTT TTT CAA CTG GAG AAA GGT GAC CGT CTG TCT GCA GAA ATT AAC	945
301	V F Q L E K G D R L S A E I N	315
946	CGT CCG GAC TAC CTG GAC TTC GCA GAA TCT GGT CAG GTT TAC TTC	990
316	R P D Y L D F A E S G Q V Y F	330
991	GGT ATC ATC GCT CTG GGT GGC GGT TCT GGT GGC GGT TCT GGT GGC	1035
331	G I I A L G G S G G S G G	345
1036	GGA TCC TCT TCT CGT ACC CCG TCT GAC AAA CCG GTT GCT CAC GTT	1080
346	G S S S R T P S D K P V A H V	360
1081	GTT GCA AAC CCG CAG GCT GAA GGT CAA CTG CAA TGG CTG AAC CGT	1125
361	V A N P Q A E G Q L Q W L N R	375
1126	CGT GCT AAC GCT CTG CTG GCT AAC GGT GTT GAA CTG CGT GAC AAC	1170
376	R A N A L L A N G V E L R D N	390
1171	CAG CTG GTT GTT CCG TCT GAA GGC CTG TAC CTG ATC TAC TCC CAG	1215
391	Q L V V P S E G L Y L I Y S Q	405
1216	GTT CTG TTC AAA GGC CAG GGC TGC CGG TCC ACC CAC GTT CTG CTG	1260
406	V L F K G Q G C P S T H V L L	420
1261	ACC CAC ACC ATC TCT CGT ATC GCT GTT TCC TAC CAG ACC AAA GTA	1305
421	T H T I S R I A V S Y Q T K V	435
1306	AAC CTG CTG TCT GCA ATC AAA TCT CCG TGC CAG CGT GAA ACC CCG	1350
436	N L L S A I K S P C Q R E T P	450
1351	GAA GGT GCT GAA GCT AAA CCG TGG TAC GAA CCG ATC TAC CTG GGT	1395
451	E G A E A K P W Y E P I Y L G	465
1396	GGC GTT TTT CAA CTG GAG AAA GGT GAC CGT CTG TCT GCA GAA ATT	1440
466	G V F Q L E K G D R L S A E I	480
1441	AAC CGT CCG GAC TAC CTG GAC TTC GCA GAA TCT GGT CAG GTT TAC	1485
481	N R P D Y L D F A E S G Q V Y	495
1486	TTC GGT ATC ATC GCT CTG TGA	1506
496	F G I I A L *	501

Figure 19B

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of cys-scTNF-L_{short}
Construct B-II

1	ATG	GGA	GAG	CTC	ATC	GAA	GGT	CGC	TGC	GCC	GGT	GGA	TCT	GGT	CAT	45
1	M	G	E	L	I	E	G	R	C	A	G	G	S	G	H	15
46	CAT	CAT	CAC	CAT	CAC	GGC	TCA	GAC	GGG	GCG	TCG	TCT	TCT	TCT	CGT	90
16	H	H	H	H	H	G	S	D	G	A	S	S	S	S	R	30
91	ACC	CCG	TCT	GAC	AAA	CCG	GTT	GCT	CAC	GTT	GTT	GCA	AAC	CCG	CAG	135
31	T	P	S	D	K	P	V	A	H	V	V	A	N	P	Q	45
136	GCT	GAA	GGT	CAA	CTG	CAA	TGG	CTG	AAC	CGT	CGT	GCT	AAC	GCT	CTG	180
46	A	E	G	Q	L	Q	W	L	N	R	R	A	N	A	L	60
181	CTG	GCT	AAC	GGT	GTT	GAA	CTG	CGT	GAC	AAC	CAG	CTG	GTT	GTT	CCG	225
61	L	A	N	G	V	E	L	R	D	N	Q	L	V	V	P	75
226	TCT	GAA	GGC	CTG	TAC	CTG	ATC	TAC	TCC	CAG	GTT	CTG	TTC	AAA	GGC	270
76	S	E	G	L	Y	L	I	Y	S	Q	V	L	F	K	G	90
271	CAG	GGC	TGC	CGG	TCC	'ACC	CAC	GTT	CTG	CTG	ACC	CAC	ACC	ATC	TCT	315
91	Q	G	C	P	S	T	H	V	L	L	T	H	T	I	S	105
316	CGT	ATC	GCT	GTT	TCC	TAC	CAG	ACC	AAA	GTA	AAC	CTG	CTG	TCT	GCA	360
106	R	I	A	V	S	Y	Q	T	K	V	N	L	L	S	A	120
361	ATC	AAA	TCT	CCG	TGC	CAG	CGT	GAA	ACC	CCG	GAA	GGT	GCT	GAA	GCT	405
121	I	K	S	P	C	Q	R	E	T	P	E	G	A	B	A	135
406	AAA	CCG	TGG	TAC	GAA	CCG	ATC	TAC	CTG	GGT	GGC	GTT	TTT	CAA	CTG	450
136	K	P	W	Y	E	P	I	Y	L	G	G	V	F	Q	L	150
451	GAG	AAA	GGT	GAC	CGT	CTG	TCT	GCA	GAA	ATT	AAC	CGT	CCG	GAC	TAC	495
151	E	K	G	D	R	L	S	A	E	I	N	R	P	D	Y	165
496	CTG	GAC	TTC	GCA	GAA	TCT	GGT	CaG	GTT	TAC	TTC	GGT	ATC	ATC	GCT	540
166	L	D	F	A	E	S	G	Q	V	Y	F	G	I	I	A	180
541	CTG	GGT	GGC	GGT	TCT	GGT	GGC	GGT	TCT	GGT	GGC	GGA	TCC	TCT	TCT	585
181	L	G	G	G	S	G	G	G	S	G	G	G	S	S	S	195
586	CGT	ACC	CCG	TCT	GAC	AAA	CCG	GTT	GCT	CAC	GTT	GTT	GCA	AAC	CCG	630
196	R	T	P	S	D	K	P	V	A	H	V	V	A	N	P	210
631	CGG	GCT	GAA	GGT	CAA	CTG	CAA	TGG	CTG	AAC	CGT	CGT	GCT	AAC	GCT	675
211	Q	O	A	E	G	Q	L	Q	W	L	N	R	R	A	N	225
676	CTG	CTG	GCT	AAC	GGT	GTT	GAA	CTG	CGT	GAC	AAC	CAG	CTG	GTT	GTT	720
226	L	L	A	N	G	V	E	L	R	D	N	Q	L	V	V	240
721	CCG	TCT	GAA	GGC	CTG	TAC	CTG	ATC	TAC	TCC	CAG	GTT	CTG	TTC	AAA	765
241	P	S	E	G	L	Y	L	I	Y	S	Q	V	L	F	K	255
766	GGC	CAG	GGC	TGC	CCG	TCC	ACC	CAC	GTG	CTG	CTG	ACC	CAC	ACC	ATC	810
256	G	Q	G	C	P	S	T	H	V	L	L	T	H	T	I	270

Figure 20A

Replacement Sheet

811 271	TCT CGT ATC GCT GTT TCC TAC CAG ACC AAA GTA AAC CTG CTG TCT S R I A V S Y Q T K V N L L S	855 285
856 286	GCA ATC AAA TCT CCG TGC CAG CGT GAA ACC CCG GAA GGT GCT GAA A I K S P C Q R E T P E G A E	900 300
901 301	GCT AAA CCG TGG TAC GAA CGG ATC TAC CTG GGT GGC GTT TTT CAA A K P W Y E F I Y L G G V F Q	945 315
946 316	CTG GAG AAA GGT GAC CGT CTG TCT GCA GAA ATT AAC CGT CCG GAC L E K G D R L S A E I N R P D	990 330
991 331	TAC CTG GAC TTC GCA GAA TCT GGT CAG GTT TAC TTC GGT ATC ATC Y L D F A E S G Q V Y F G I I	1035 345
1036 346	GCT CTG GGT GCC GGT TCT GTT GGC GGT TCT GGT GGC GGA TCC TCT A L G G G S G G G S G G G S S	1080 360
1081 361	TCT CGT ACC CCG TCT GAC AAA CCC GTT GCT CAC GTT GTC AAC S R T P S D K P V A H V V A N	1125 375
1126 376	CCG CAG GCT GAA GGT CAA CTG CAA TGG CTG AAC CGT CGT GCT AAC P Q A E G Q L Q W L N R R A N	1170 390
1171 391	GCT CTG CTG GCT AAC GGT GTT GAA CTG CGT GAC AAC CAG CTG GTT A L L A N G V E L R D N Q L V	1215 405
1216 406	GTT CCG TCT GAA GGC CTG TAC CTG ATC TAC TCC CAG GTT CTG TTC V P S E G L Y L I Y S Q V L F	1260 420
1261 421	AAA GGC CAG GGC TGC CCG TCC ACC CAC GTT CTG CTG ACC CAC ACC K G Q G C P S T H V L L T H T	1305 435
1306 436	ATC TCT CGT ATC GCT GTT TCC TAC CAG ACC AAA GTA AAC CTG CTG I S R I A V S Y Q T K V N L L	1350 450
1351 451	TCT GCA ATC AAA TCT CCG TGC CAG CGT GAA ACC CCG GAA GGT GCT S A I K S P C Q R E T P E G A	1395 465
1396 466	GAA GCT AAA CCG TGG TAC GAA CGG ATC TAC CTG GGT GGC GTT TTT E A K P W Y E P I Y L G G V F	1440 480
1441 481	CAA CTG GAG AAA GGT GAC CGT CTG TCT GCA GAA ATT AAC CGT CCG Q L E K G D R L S A E I N R P	1485 495
1486 496	GAC TAC CTG GAC TTC GCA GAA TCT GGT CAG GTT TAC TTC GGT ATC D Y L D F A E S G Q V Y F G I	1530 510
1531 511	ATC GCT CTG TGA I A L *	1542 513

Figure 20B

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of scFasL
Construct C

1	ATG GCT ATC ATC TAC CTC ATC CTC CTG TTC ACC GCT GTG CGG GGC	45
1	M A I I Y L I L F T A V R G	15
46	GCG GCC GCG GAT TAC AAA GAC GAT GAC GAT AAA GAA TTC ACG CGT	90
16	A A A D Y K D D D D K E F T R	30
91	GAA AAA AAAG GAG CTG AGG AAR GTG GCC CAT TTA ACA GGC AAG TCC	135
31	E K K E L R K V A H L T G K S	45
136	AAC TCA AGG TCC ATG CCT CTG GAA TGG GAA GAC ACC TAT GGA ATT	180
46	N S R S M P L E W E D T Y G I	60
181	GTC CTG CTT TCT GGA GTG AAG TAT AAG AAG GGT GGC CTT GTG ATC	225
61	V L L S G V K Y K G G L V I	75
226	AAT GAA ACT GGG CTG TAC TTT GTA TAT TCC AAA GTA TAC TTC CGG	270
76	N E T G L Y F V Y S K V Y F R	90
271	GGT CAA TCT TGC AAC AAC CTG CCC CTG AGC CAC AAG GTC TAC ATG	315
91	G Q S C N N L P L S H K V Y M	105
316	AGG AAC TCT AAG TAT CCC CAG GAT CTG GTG ATG ATG GAG GGG AAG	360
106	R N S K Y P Q D L V M M E G K	120
361	ATG ATG AGC TAC TGC ACT ACT GGG CAG ATG TGG GCC CGC AGC AGC	405
121	M M S Y C T T G Q M W A R S S	135
406	TAC CTG GGG GCA GTG TTC AAT CTT ACC AGT GCT GAT CAT TTA TAT	450
136	Y L G A V F N L T S A D H L Y	150
451	GTC AAC GTA TCT GAG CTC TCT CTG GTC AAT TTT GAG GAA TCT CAG	495
151	V N V S E L S L V N F E E S Q	165
496	ACG TTT TTC GGC TTA TAT AAG CTC GGT GGC GGT TCT GGT GGC GGT	540
166	T F F G L Y K L G G G S G G G	180
541	TCT GGT GGC GGT TCT GGT GGC GGA TCA GAA AAA ARG GAG CTG AGG	585
181	S G G G S G G G S E K K E L R	195
586	AAA GTG GCC CAT TTA ACA GGC AAG TCC AAC TCA AGG TCC ATG CCT	630
196	K V A H L T G K S N S R S M P	210
631	CTG GAA TGG GAA GAC ACC TAT GGA ATT GTC CTG CTT TCT GGA GTG	675
211	L E W E D T Y G I V L L S G V	225
676	AAG TAT AAG AAG GGT GGC CTT GTG ATC AAT GAA ACT GGG CTG TAC	720
226	K Y K K G G L V I N E T G L Y	240
721	TTT GTA TAT TCC AAA GTA TAC TTC CGG GGT CAA TCT TGC AAC AAC	765
241	F V Y S K V Y F R G Q S C N N	255

Figure 21A

Replacement Sheet

766	CTG	CCC	CTG	AGC	CAC	AAG	GTC	TAC	ATG	AGG	AAC	TCT	AAG	TAT	CCC	810	
256	I	P	L	S	H	K	V	Y	M	R	N	S	K	Y	P	270	
811	CAG	GAT	CTG	GTG	ATG	ATG	GAG	GGG	AAG	ATG	ATG	ATG	AGC	TAC	TGC	ACT	855
271	Q	D	L	V	M	M	E	G	K	M	M	S	Y	C	T	285	
856	ACT	GGG	CGG	ATG	TGG	GCC	CGC	AGC	AGC	TAC	CTG	GGG	GCA	GTG	TTC	900	
286	T	G	Q	M	W	A	R	S	S	Y	L	G	A	V	F	300	
901	AAT	CTT	ACC	AGT	GCT	GAT	CAT	TTA	TAT	GTC	AAC	GTA	TCT	GAG	CTC	945	
301	N	L	T	S	A	D	H	L	Y	V	N	V	S	E	L	315	
946	TCT	CTG	GTC	AAT	TTT	GAG	GAA	TCT	CAG	ACG	TTT	TTC	GGC	TTA	TAT	990	
316	S	L	V	N	F	E	E	S	Q	T	F	F	G	L	Y	330	
991	AAG	CTC	GGT	GGC	GGT	TCT	GGT	GGC	GGT	TCT	GGT	GGC	GGT	TCT	GGT	1035	
331	K	L	G	G	G	S	G	G	G	S	G	G	G	S	G	345	
1036	GGC	GGA	TCC	GAA	AAA	AAG	GAG	CTG	AGG	AAA	GTG	GCC	CAT	TTA	ACA	1080	
346	G	G	S	E	K	K	E	L	R	K	V	A	H	L	T	360	
1081	GGC	AAG	TCC	AAC	TCA	AGG	TCC	ATG	CCT	CTG	GAA	TGG	GAA	GAC	ACC	1125	
361	G	K	S	N	S	R	S	M	P	L	E	W	E	D	T	375	
1126	TAT	GGA	ATT	GTC	CTG	CTT	TCT	GGA	GTG	AAG	TAT	ARG	AAG	GGT	GGC	1170	
376	Y	G	I	V	L	L	S	G	V	K	Y	K	K	G	G	390	
1171	CTT	GTG	ATC	AAT	GAA	ACT	GGG	CTG	TAC	TTT	GTA	TAT	TCC	AAA	GTA	1215	
391	L	V	I	N	E	T	G	L	Y	F	V	Y	S	K	V	405	
1216	TAC	TTC	CGG	GGT	CAA	TCT	TGC	AAC	AAC	CTG	CCC	CTG	AGC	CAC	AAG	1260	
406	Y	F	R	G	Q	S	C	N	N	L	P	L	S	H	K	420	
1261	GTC	TAC	ATG	AGG	AAC	TCT	AAG	TAT	CCC	CAG	GAT	CTG	GTG	ATG	ATG	1305	
421	V	Y	M	R	N	S	K	Y	P	Q	D	L	V	M	M	435	
1306	GAG	GGG	AGG	ATG	ATG	AGC	TAC	TGC	ACT	ACT	GGG	CAG	ATG	TGG	GCC	1350	
436	E	G	K	M	M	S	Y	C	T	T	G	Q	M	W	A	450	
1351	CGC	AGC	AGC	TAC	CTG	GGG	GCA	GTG	TTC	AAT	CTT	ACC	AGT	GCT	GAT	1395	
451	R	S	S	Y	L	G	A	V	F	N	L	T	S	A	D	465	
1396	CAT	TTA	TAT	GTC	AAC	GTA	TCT	GAG	CTC	TCT	CTG	GTC	AAT	TTT	GAG	1440	
466	H	L	Y	V	N	V	S	E	L	S	L	V	N	F	E	480	
1441	GAA	TCT	CAG	ACG	TTT	TTC	GGC	TTA	TAT	AAG	CTC	TGA				1476	
481	E	S	Q	T	F	F	G	L	Y	K	L	*				491	

Figure 21B

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of scTRAIL Construct D

1	ATG	GCT	ATC	ATC	TAC	CTC	ATC	CTC	CTG	TTC	ACC	GCT	GTG	CGG	GGC	45	
1	M	A	I	I	Y	L	I	L	L	F	T	A	V	R	G	15	
46	GCG	GCC	GCG	GAT	TAC	AAA	GAC	GAT	GAC	GAT	AAA	GAA	TTC	GGA	ACC	90	
46	A	A	A	D	Y	K	D	D	D	D	K	E	F	G	T	30	
91	TCT	GAG	GAA	ACC	ATT	TCT	ACA	GTT	CAA	GAA	AAG	CAA	CAA	AAT	ATT	135	
31	S	E	E	T	I	S	T	V	Q	E	K	Q	Q	N	I	45	
136	TCT	CCC	CTA	GTG	AGA	GAA	AGA	GTT	CCT	CAG	AGA	GTA	GCA	GCT	CAC	180	
46	S	P	L	V	R	E	R	G	P	Q	R	V	A	A	H	60	
181	ATA	ACT	GGG	ACC	AGA	GGG	AGA	AGA	AGC	AAC	ACA	TTG	TCT	TCT	CCA	AAC	225
61	I	T	G	T	R	G	R	S	N	T	L	S	S	P	N	75	
226	TCC	AAA	GAT	GAA	AAA	GAG	GCT	CTG	GGC	CGC	AAA	ATA	AAC	TCC	TGG	GAA	270
76	S	K	N	E	K	A	L	G	R	K	I	N	S	W	E	90	
271	TCA	TCA	AGG	AGT	GGG	CAT	TCA	TTC	CTG	AGC	AAC	TTG	CAC	TTG	AGG	315	
91	S	S	R	S	G	H	S	F	L	S	N	L	H	L	R	105	
316	AAT	GGT	GAA	CTG	GTC	ATC	CAT	GAA	AAA	GGG	TTT	TAC	TAC	ATC	TAT	360	
106	N	G	E	L	V	I	H	E	K	G	F	Y	Y	I	Y	120	
361	TCC	CAA	ACA	TAC	TTT	CGA	TTT	CGG	GAA	ATA	AAA	GAA	AAC	ACA	405		
121	S	Q	T	Y	F	R	F	Q	E	E	I	K	E	N	T	135	
406	AAG	AAC	GAC	AAA	CAA	ATG	GTC	CAA	TAT	ATT	TAC	AAA	TAC	ACA	AGT	450	
136	K	N	D	K	Q	M	V	Q	Y	I	Y	K	Y	T	S	150	
451	TAT	CCT	GAC	CCT	ATA	TTG	TTG	ATG	AAA	AGT	GCT	AGA	AAT	AGT	TGT	495	
151	Y	P	D	P	I	L	L	M	K	S	A	R	N	S	C	165	
496	TGG	TCT	AAA	GAT	GCA	GAA	TAT	GGA	CTC	TAT	TCC	ATC	TAT	CAC	GGG	540	
166	W	S	K	D	A	E	Y	G	L	Y	S	I	Y	Q	G	180	
541	GGA	ATA	TTT	GAG	CTT	AAG	GAA	AAT	GAC	AGA	ATT	TTT	GTT	TCT	GTA	585	
181	G	I	F	E	L	K	E	N	D	R	I	F	V	S	V	195	
586	ACA	AAT	GAG	CAC	TTG	ATA	GAC	ATG	GAC	CAT	GAA	GCC	AGT	TTT	TTC	630	
196	T	N	E	H	L	I	D	M	D	H	E	A	S	F	F	210	
631	GGG	GCC	TTT	TTA	GTT	GCG	GGT	GGC	GCT	TCT	GGT	GCG	GGT	TCT	GGT	675	
211	G	A	F	L	V	G	G	G	G	S	G	G	G	S	G	225	
676	GGC	GGT	TCT	GGT	GGC	GGA	TCA	ACC	TCT	GAG	GAA	ACC	ATT	TCT	ACA	720	
226	G	G	S	G	G	G	S	T	S	E	E	T	I	S	T	240	
721	GTT	CAA	GAA	AAG	CAA	CAA	AAT	ATT	TCT	CCC	CTA	GTG	AGA	GAA	AGA	765	
241	V	Q	E	K	Q	Q	N	I	S	P	L	V	R	E	R	255	

Figure 22A

Replacement Sheet

766	GGT CCT CAG AGA GTA GCA GCT CAC ATA ACT GGG ACC AGA GGA AGA	810
256	G P Q R V A A H I T G T R G R	270
811	AGC AAC ACA TTG TCT TCT CCA AAC TCC AAG ATG GAA AAG GCT CTG	855
271	S N T L S S P N S K N E K A L	285
856	GCC CCC AAA ATA AAC TCC TGG GAA TCA TCA AGG AGT GGG CAT TCA	900
286	G R K I N S W E S S R S G H S	300
901	TTC CTG AGC AAC TTG CAC TTG AGG AAT GGT GAA CTG GTC ATC CAT	945
301	F L S N L H L R N G E L V I H	315
946	GAA AAA GGG TTT TAC TAC ATC TAT TCC CAA ACA TAC TTT CGA TTT	990
316	E K G F Y Y I Y S Q T Y F R F	330
991	CAG GAG GAA ATA AAA GAA AAC ACA AAG AAC GAC AAA CRA ATG GTC	1035
331	Q E E I K E N T K N D K Q M V	345
1036	CAA TAT ATT TAC AAA TAC ACA AGT TAT CCT GAC CCT ATA TTG TTG	1080
346	Q Y I Y K Y T S Y P D P I L L	360
1081	ATG AAA AGT GCT AGA AAT AGT TGT TGG TCT AAA GAT GCA GAA TAT	1125
361	M K S A R N S C W S K D A E Y	375
1126	GGA CTC TAT TCC ATC TAT CAA GGG GGA ATA TTT GAG CTT AAG GAA	1170
376	G L Y S I Y Q G G I F E L K E	390
1171	AAT GAC AGA ATT TTT GTT TCT GTC GTC ACA AAT GAG CAC TTG ATA GAC	1215
391	N D R I F V S V T N E H L I D	405
1216	ATG GAC CAT GAA GCC ACT TTT TTC GGG GCC TTT TTA GTT GGC GGT	1260
406	M D H E A S F F G A F L V G G	420
1261	GCG GGT TCT GGT GGG GGT TCT GGT GGC GGT TCT GGT GGC GGA TCC	1305
421	G G S G G G S G G G S G G G S	435
1306	ACC TCT GAG GAA ACC ATT TCT ACA GTT CAA GAA AAG CAA CAA ATT	1350
436	T S E E T I S T V Q E K Q Q N	450
1351	ATT TCT CCC CTA GTG AGA GAA AGA GGT CCT CAG AGA GCA GCA GCT	1395
451	I S P L V R E R G P Q R V A A	465
1396	CAC ATA ACT GGG ACC AGA GGA AGA AGC AAC ACA TTG TCT TCT CCA	1440
466	H I T G T R G R S N T L S S P	480
1441	AAC TCC AAG AAT GAA AAG GCT CTG GGC CGC AAA ATA AAC TCC TTG	1485
481	N S K N E K A L G R K I N S W	495
1486	GAA TCA TCA AGG AGT GGG CAT TCA TTC CTG AGC AAC TTG CAC TTG	1530
496	E S S R S G H S F L S N L H L	510
1531	AGG AAT GGT GAA CTG GTC ATC CAT GAA AAA GGG TTT TAC TAC ATC	1575
511	R N G E L V I H E K G F Y Y I	525
1576	TAT TCC CRA ACA TAC TTT CGA TTT CAG GAG GAA ATA AAA GAA AAC	1620
526	Y S Q T Y F R F Q E E I K E N	540

Figure 22B

Replacement Sheet

1621	ACA	AAG	AAC	GAC	AAA	CAA	ATG	GTC	CAA	TAT	ATT	TAC	AAA	TAC	ACA	1665
541	T	K	N	D	K	Q	M	V	Q	Y	I	Y	K	Y	T	555
1666	AGT	TAT	CCT	GAC	CCT	ATA	TTG	TTG	ATG	AAA	AGT	GCT	AGA	AAT	AGT	1710
556	S	Y	P	D	P	I	L	L	M	K	S	A	R	N	S	570
1711	TGT	TGG	TCT	AAA	GAT	GCA	GAA	TAT	GGA	CTC	TAT	TCC	ATC	TAT	CRA	1755
571	C	W	S	K	D	A	E	Y	G	L	Y	S	I	Y	Q	585
1756	GGG	GGA	ATA	TTT	GAG	CTT	AAG	GAA	AAT	GAC	AGA	ATT	TTT	GTT	TCT	1800
586	G	G	I	F	E	L	K	E	N	D	R	I	F	V	S	600
1801	GTA	ACA	AAT	GAG	CAC	TTG	ATA	GAC	ATG	GAC	CAT	GAA	GCC	AGT	TTT	1845
601	V	T	N	E	H	L	I	D	M	D	H	E	A	S	F	615
1846	TTC	GGG	GCC	TTT	TTA	GTT	GCC	TGA								1866
616	F	G	A	F	L	V	G	*								622

Figure 22C

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of scTNF

Construct E

1	ATG	GCT	ATC	ATC	TAC	CTC	ATC	CTC	CTG	TTC	ACC	GCT	GTG	CGG	GCG	45
1	M	A	I	I	Y	L	I	L	L	F	T	A	V	R	G	15
46	GGG	GCC	GCG	GAT	TAC	AAA	GAC	GAT	GAC	GAT	AAA	GAA	TTC	GGG	TCA	90
16	A	A	A	D	Y	K	D	D	D	D	K	E	F	G	S	30
91	TCT	TCT	CGA	ACC	CCG	AGT	GAC	AAG	CCT	GTA	GCC	CAT	GTT	GTG	GCA	135
31	S	S	R	T	P	S	D	K	P	V	A	H	V	V	A	45
136	AAC	CCT	CAA	GCT	GAG	GGG	CAG	CTC	CAG	TGG	CTG	AAC	CGC	CGG	GCC	180
46	N	P	Q	A	E	G	Q	L	Q	W	L	N	R	R	A	60
181	AAT	GCC	CTC	CTG	GCC	AAT	GGC	GTG	GAG	CTG	AGA	GAT	AAC	CAG	CTG	225
61	N	A	L	L	A	N	G	V	E	L	R	D	N	Q	L	75
226	GTG	GTG	CCA	TCA	GAG	GCC	CTG	TAC	CTC	ATC	TAC	TCC	CAG	GTC	CTC	270
76	V	V	P	S	E	G	G	L	Y	L	I	Y	S	Q	V	90
271	TTC	AAG	GGC	CAA	GGC	TGC	CCC	TCC	ACC	CAT	GTG	CTC	CTC	ACC	CAC	315
91	F	K	G	Q	G	C	P	S	T	H	V	L	L	T	H	105
316	ACC	ATC	AGC	CGC	ATC	GCC	GTC	TCC	TAC	CAG	ACC	AAG	GTC	AAC	CTC	360
106	T	I	S	R	I	A	V	S	Y	Q	T	K	V	N	L	120
361	CTC	TCT	GCC	ATC	AAG	AGC	CCC	TGC	CAG	AGG	GAG	ACC	CCA	GAG	GGG	405
121	L	S	A	I	K	S	P	C	Q	R	E	T	P	E	G	135
406	GCT	GAG	GCC	AAG	CCC	TGG	TAT	GAG	CCC	ATC	TAT	CTG	GGA	GGG	GTC	450
136	A	E	A	K	P	W	Y	E	F	I	Y	L	G	G	V	150
451	TTC	CAG	CTG	GAG	AAG	GGT	GAC	CGA	CTC	AGC	GCT	GAG	ATC	AAT	CGG	495
151	F	Q	L	E	K	G	D	R	L	S	A	E	I	N	R	165
496	CCC	GAC	TAT	CTC	GAC	TTT	GCC	GAG	TCT	GGG	CAG	GTC	TAC	TTT	GGG	540
166	P	D	Y	L	D	F	A	E	S	G	Q	V	Y	F	G	180
541	ATC	ATT	GCC	CTG	GGT	GGC	GGT	TCT	GGT	GCC	GGT	TCT	GGT	GCC	GGT	585
181	I	I	A	L	G	G	G	S	G	G	G	S	G	G	G	195
586	TCT	GGT	GGC	GGA	TCA	TCA	TCT	TCT	CGA	ACC	CCG	AGT	GAC	AAG	CCT	630
196	S	G	G	G	S	S	S	S	R	T	P	S	D	K	P	210
631	GTA	GCC	CAT	GTT	GTA	GCA	AAC	CCT	CAA	GCT	GAG	GGG	CAG	CTC	CAG	675
211	V	A	H	V	V	A	N	F	Q	A	E	G	Q	L	Q	225
676	TGG	CTG	AAC	CGC	CGG	GCC	AAT	GCC	CTC	CTG	GCC	AAT	GGC	GTG	GAG	720
226	W	L	N	R	R	A	N	A	L	L	A	N	G	V	E	240
721	CTG	AGA	GAT	AAC	CAG	CTG	GTG	GTG	CCA	TCA	GAG	GGC	CTG	TAC	CTC	765
241	L	R	D	N	Q	L	V	V	P	S	E	G	L	Y	L	255

Figure 23A

Replacement Sheet

256	ATC TAC TCC CAG GTC CTC TTC AAG GGC CAA GGC TGC CCC TCC ACC I Y S Q V L F K G Q G C P S T	810 270
271	CAT GTG CTC CTC ACC CAC ACC ATC AGC CGC ATC GCC GTC TCC TAC H V L L T H T I S R I A V S Y	855 285
286	CAG ACC AAG GTC AAC CTC CTC TCT GCC ATC AAG AGC CCC TGC CAG Q T K V N L L S A I K S P C Q	900 300
301	AGG GAG ACC CCA GAG GGG GCT GAG GCC AAG CCC TGG TAT GAG CCC R E T P E G A E A K F W Y E P	945 315
316	ATC TAT CTG GGA GGG GTC TTC CAG CTG GAC AAG GGT GAC CGA CTC I Y L G G V F Q L E K G D R L	990 330
331	AGC GCT GAG ATC AAT CGG CCC GAC TAT CTC GAC TTT GCC GAG TCT S A E I N R P D Y L D F A E S	1035 345
346	GGG CAG GTC TAC TTT GGG ATC ATT GCC CTG GGT GGC GGT TCT GGT G Q V Y F G I I A L G G G S G	1080 360
361	GGC GGT TCT GGT GGC GGT TCT GGT GGC GGA TCA TCA TCT TCT CGA G G S G G S G G G S S S S R	1125 375
376	ACC CCG AGT GAC AAG CCT GTA GCC CAT GTT GTA GCA AAC CCT CAA T P S D K P V A H V V A N P Q	1170 390
391	GCT GAG GGG CAG CTC CAG TGG CTG AAC CGC CGG GCC RAT GCC CTC A E G Q L Q W L N R R A N A L	1215 405
406	CTG GCC AAT GGC GTG GAG CTG AGA GAT AAC CAG CTG GTG GTG CCA L A N G V E L R D N Q L V V P	1260 420
421	TCA GAG GGC CTG TAC CTC ATC TAC TCC CAG GTC CTC TTC AAG GGC S E G L Y L I Y S Q V L F K G	1305 435
436	CAA GGC TGC CCC TCC ACC CAT GTG CTC CTC ACC CAC ACC ATC AGC Q G C P S T H V L L T H T I S	1350 450
451	CGC ATC GCC TCC TAC CAG ACC AAG GTC AAC CTC CTC CTC TCT GCC R I A V S Y Q T K V N L L S A	1395 465
466	ATC AAG AGC CCC TGC CAG AGG GAG ACC CCA GAG GGG GCT GAG GCC I K S P C Q R E T P E G A E A	1440 480
481	AAG CCC TGG TAT GAG CCC ATC TAT CTG GGA GGG GTC TTC CAG CAG K P W Y E P I Y L G G V F Q L	1485 495
496	GAG AAG GGT GAC CGA CTC AGC GCT GAG ATC AAT CGG CCC GAC TAT E K G D R L S A E I N R P D Y	1530 510
511	CTC GAC TTT GCC GAG TCT GGG CAG GTC TAC TTT GGG ATC ATT GCC L D F A E S G Q V Y F G I I A	1575 525
526	CTG TGA L *	1581 526

Figure 23B

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of scFasL-AMAIze Construct F

1	ATG	GAC	TGG	ACC	TGG	CGC	GTC	TTT	TGC	CTG	CTC	GCC	GTG	GCT	CCT	45
1	M	D	W	T	W	R	V	F	C	L	L	A	V	A	P	15
46	GGG	GCC	CAC	AGC	CGG	GTA	CAG	CTG	GTG	CAG	TCT	GGG	GGG	GCC	ATG	90
16	G	A	H	S	Q	V	Q	L	V	Q	S	G	G	G	M	30
91	GTA	GAG	CCT	GGG	GGG	TCC	CTT	AGA	CTC	TCC	TGT	GCA	GCC	TCT	GGG	135
31	V	E	P	G	G	S	L	R	L	S	C	A	A	S	G	45
136	TTC	ACT	TTC	AGT	ATG	GCC	TGG	ATG	AGC	TGG	GTC	GCG	CAG	GCT	CCA	180
46	F	T	F	S	N	A	W	M	S	W	V	R	Q	A	P	60
181	GGG	AAG	GGG	CTG	GAG	TGG	GTT	GGC	CGT	ATA	AAA	AGC	AAA	GCT	GGT	225
61	G	K	G	L	E	W	V	G	R	I	K	S	K	A	G	75
226	GGT	GGG	ACA	GCA	GAG	TAC	GCT	GCA	CCC	GTG	AAA	GGC	AGA	TTC	ACC	270
76	G	G	T	A	E	Y	A	A	P	V	K	G	R	F	T	90
271	ATC	TCA	AGA	GAT	GAT	TCA	CAA	AAC	ACG	CTG	TAT	CTG	CAA	ATG	AAC	315
91	I	S	R	D	D	S	Q	N	T	L	Y	L	Q	M	N	105
316	AGC	CTG	AAA	ACC	GAC	GAC	AAC	GCC	GTG	TAT	TAC	TGT	ACC	ACA	CAT	360
106	S	L	K	T	D	D	T	A	V	Y	Y	C	T	T	H	120
361	GTC	TAC	GGT	GCC	CCC	CGG	AAC	TGG	GGC	CAG	GGG	TCC	CTG	GTC	ACC	405
121	V	Y	G	A	P	R	N	W	G	Q	G	S	L	V	T	135
406	GTC	TCC	TCA	GCC	TCC	ACC	AAG	GCC	CCA	AAG	CTT	GAA	GAA	GGT	GAA	450
136	V	S	S	A	S	T	K	G	P	K	L	E	E	G	E	150
451	TTT	TCA	GAA	GCA	GCG	GTA	CAG	TCT	GTG	TTG	ACT	CAG	CCG	CCC	TCA	495
151	F	S	E	A	R	V	Q	S	V	L	T	Q	P	P	S	165
496	GTG	TCT	GGC	GCC	CCA	GGG	CAG	AAG	GTC	ACC	ATC	TCC	TGC	TCT	GGG	540
166	V	S	A	A	P	G	Q	K	V	T	I	S	C	S	G	180
541	AGC	AGC	TCC	AAC	ATT	GGG	AAAT	AAAT	TAT	GTC	TCC	TGG	TAC	GTG	CAA	585
181	S	S	S	N	I	G	N	N	Y	V	S	W	Y	V	Q	195
586	CTC	CCA	GGG	ACA	GCC	CCC	AAA	CTC	CTC	ATT	TAT	GAC	ANT	ANT	AAG	630
196	L	P	G	T	A	P	K	L	L	I	Y	D	N	N	K	210
631	CGA	TTC	TCA	GGG	GTT	CCT	GAC	CGA	TTC	TCT	GGC	TCC	AAG	TCT	GGC	675
211	R	F	S	G	V	P	D	R	F	S	G	S	K	S	G	225
676	ACG	TCA	GCC	ACC	CTG	GGC	ATC	ACC	GGG	CTC	CAG	ACT	GGG	GAC	GAG	720
226	T	S	A	T	L	G	I	T	G	L	Q	T	G	D	E	240
721	GCC	GAT	TAT	TAC	TGC	GGG	GCA	TGG	GAT	GGC	AGC	CTG	CGT	GAA	GCG	765
241	A	D	Y	Y	C	G	A	W	D	G	S	L	R	E	A	255

Figure 24A

Replacement Sheet

766	GTA	TTC	GGC	GGG	ACC	AAG	GTC	ACC	GTC	CTA	GGT	GCG	GCC	GCA	810	
256	V	F	G	G	G	T	K	V	T	V	L	G	A	A	270	
811	GTT	GAG	CTC	GAG	ggc	GCG	GCG	GAT	TAC	AAA	GAC	GAT	GAC	GAT	855	
271	V	E	L	E	A	A	A	D	Y	K	D	D	D	D	285	
856	GAA	TTC	ACG	CGT	GAA	AAA	AGG	GAG	CTG	AGG	AAA	GTG	GCC	CAT	TTA	900
286	E	F	T	R	E	K	K	E	L	R	K	V	A	H	L	300
901	ACA	GGC	AAAG	TCC	AAC	TCA	AGG	TCC	ATG	CCT	CTG	GAA	TGG	GAA	GAC	945
301	T	G	K	S	N	S	R	S	M	P	L	R	W	E	D	315
946	ACC	TAT	GGG	ATT	GTC	CTG	CTT	TCT	GGG	GTG	AGG	TAT	ANG	ANG	GGT	990
316	T	Y	G	I	V	L	L	S	G	V	K	Y	K	K	G	330
991	GGC	CTT	GTG	ATC	ATT	GAA	ACT	GGG	CTG	TAC	TTT	GTA	TAT	TCC	AAA	1035
331	G	L	V	I	N	E	T	G	L	Y	F	V	Y	S	K	345
1036	GTA	TAC	TTC	CGG	GGT	CRA	TCT	TGC	AAC	AAC	CTG	CCC	CTG	AGC	CAC	1080
346	V	Y	F	R	G	Q	S	C	N	N	L	P	L	S	H	360
1081	AAG	GTC	TAC	ATG	AGG	AAC	TCT	AAG	TAT	CCC	CAG	GAT	CTG	GTG	ATG	1125
361	K	V	Y	M	R	N	S	K	Y	P	Q	D	L	V	M	375
1126	ATG	GAG	GGG	AAG	ATG	ATG	AGC	TAC	TGC	ACT	ACT	GGG	CAG	ATG	TGG	1170
376	M	E	G	K	M	M	S	Y	C	T	T	G	Q	M	W	390
1171	GCC	GGC	AGC	AGC	TCT	CTG	GGG	GCA	GTG	TTC	AAT	CTT	ACC	AGT	GCT	1215
391	A	R	S	S	Y	L	G	A	V	F	N	L	T	S	A	405
1216	GAT	CAT	TTA	TAT	GTC	AAC	GTA	TCT	GAG	CTC	TCT	CTG	GTC	ATT	TTT	1260
406	D	H	L	Y	V	N	V	S	E	L	S	L	V	N	F	420
1261	GAG	GAA	TCT	CAG	ACG	TTT	TTC	GGC	TTA	TAT	AAG	CTC	GGT	GCG	GGT	1305
421	E	E	S	Q	T	F	F	G	L	Y	K	L	G	G	G	435
1306	TCT	GGT	GGC	GGT	TCT	GGT	GGC	GGT	TCT	GGT	GGC	GGA	TCA	GAA	AAA	1350
436	S	G	G	S	G	G	G	S	G	S	G	G	S	E	K	450
1351	AAG	GAG	CTG	AGG	AAA	GTG	GCC	CAT	TTA	ACA	GGC	AAG	TCC	AAC	TCA	1395
451	K	E	L	R	K	V	A	H	L	T	G	K	S	N	S	465
1396	AGG	TCC	ATG	CCT	CTG	GAA	TGG	GAA	GAC	ACC	TAT	GGA	ATT	GTC	CTG	1440
466	R	S	M	P	L	E	W	E	D	T	Y	G	I	V	L	480
1441	CTT	TCT	GGG	GTG	AGG	TAT	AAG	AGG	GGT	GGC	CTT	GTG	ATC	AAT	GAA	1485
481	L	S	G	V	K	Y	K	K	G	G	L	V	I	N	E	495
1486	ACT	GGG	CTG	TAC	TTT	GTA	TAT	TCC	AAA	GTA	TAC	TTC	CGG	GGT	CAA	1530
496	T	G	L	Y	F	V	Y	S	K	V	Y	F	R	G	Q	510
1531	TCT	TGC	AAC	AAC	CTG	CCC	CTG	AGC	CAC	AAG	GTC	TAC	ATG	AGG	AAC	1575
511	S	C	N	N	L	P	L	S	H	K	V	Y	M	R	N	525
1576	TCT	AAG	TAT	CCC	CAG	GAT	CTG	GTG	ATG	ATG	GAG	GGG	AAG	ATG	ATG	1620
526	S	K	Y	P	Q	D	L	V	M	M	E	G	K	M	M	540

Figure 24B

Replacement Sheet

1621	AGC TAC TGC ACT ACT	GGG CAG ATG TGG GCC CGC AGC AGC TAC CTG	1665
541	S Y C T T G Q M W A R S S Y L		555
1666	GGG GCA GTG TTC AAT CTT ACC AGT GCT GAT CAT TTA TAT GTC AAC		1710
556	G A V F N L T S A D H L Y V N		570
1711	GTA TCT GAG CTC TCT CTG GTC AAT TTT GAG GAA TCT CAG ACG TTT		1755
571	V S E L S L V N F E E S Q T F		585
1756	TTC GGC TTA TAT AAG CTC GGT GGC GGT TCT GGT GGC GGT TCT GGT		1800
586	F G L Y K L G G G S G S G G S G		600
1801	GGC GGT TCT GGT GGC GGA TCC GAA AAA AAG GAG CTG AGG AAA GTG		1845
601	G G S G G G S E K K E L R K V		615
1846	GCC CAT TTA ACA GGC AAG TCC AAC TCA AGG TCC ATG CCT CTG GAA		1890
616	A H L T G K S N S R S M P L E		630
1891	TGG GAA GAC ACC TAT GGA ATT GTC CTG CTT TCT GGA GTG AAG TAT		1935
631	W E D T Y G I V L L S G V K Y		645
1936	AAG AAG GGT GGC CTT GTG ATC AAT GAA ACT GGG CTG TAC TTT GTA		1980
646	K K G G L V I N E T G L Y F V		660
1981	TAT TCC AAA GTA TAC TTC CCG GGT CAA TCT TGC AAC AAC CTG CCC		2025
661	Y S K V Y F R G Q S C N N L P		675
2026	CTG AGC CAC AAG GTC TAC ATG AGG AAC TCT AAG TAT CCC CAG GAT		2070
676	L S H K V Y M R N S K Y P Q D		690
2071	CTG GTG ATG ATG GAG GGG AAG ATG ATG AGC TAC TGC ACT ACT GGG		2115
691	L V M M E G K M M S Y C T T G		705
2116	CAG ATG TGG GCC CGC AGC AGC TAC CTG GGG GCA GTG TTC AAT CTT		2160
706	Q M W A R S S Y L G A V F N L		720
2161	ACC AGT GCT GAT CAT TTA TAT GTC AAC GTA TCT GAG CTC TCT CTG		2205
721	T S A D H L Y V N V S E L S L		735
2206	GTC AAT TTT GAG GAA TCT CAG ACG TTT TTC GGC TTA TAT AAG CTC		2250
736	V N F E E S Q T F F G L Y K L		750
2251	TGA .		2253
751	*		751

Figure 24C

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of scTRAIL-AMAIZE Construct G

1	ATG	GAC	TGG	ACC	TGG	CGC	GTG	TTT	TGC	CTG	CTC	GCC	GTG	GCT	CCT	45
1	M	D	W	T	W	R	V	F	C	L	L	A	V	A	P	15
46	GGG	GCC	CAC	AGC	CAG	GTA	CAG	CTG	CTG	CAG	TCT	GGG	GGA	GGC	ATG	90
46	G	A	H	S	Q	V	Q	L	V	Q	S	G	G	G	M	30
91	GTA	GAG	CCT	GGG	GGG	TCC	CTT	AGA	CTC	TCC	TGT	GCA	GCC	TCT	GGG	135
31	V	E	P	G	G	S	L	R	L	S	C	A	A	S	G	45
136	TTC	ACT	TTC	AGT	AAT	GCC	TGG	ATG	AGC	TGG	GTC	CGC	CAG	GCT	CCA	180
46	F	T	F	S	N	A	W	M	S	W	V	R	Q	A	P	60
181	GGG	AAAG	GGG	CTG	GAG	TGG	GTT	GGC	CGT	ATA	AAA	AGC	AAA	GCT	GGT	225
61	G	K	G	L	E	W	V	G	R	I	K	S	K	A	G	75
226	GGT	GGG	ACA	GCA	GAG	TAC	GCT	GCA	CCC	GTC	AAA	GGC	AGA	TTC	ACC	270
76	G	G	T	A	E	Y	A	A	P	V	K	G	R	F	T	90
271	ATC	TCA	AGA	GAT	GAT	TCA	CAA	AAC	ACG	CTG	TAT	CTG	CAA	ATG	AAC	315
91	I	S	R	D	D	S	Q	N	T	L	Y	L	Q	M	N	105
316	AGC	CTG	AAA	ACC	GAC	GAC	ACA	GCC	GTG	TAT	TAC	TGT	ACC	ACA	CAT	360
106	S	L	K	T	D	D	T	A	V	Y	Y	C	T	T	H	120
361	GTC	TAC	GGT	GCC	CCC	CGG	AAC	TGG	GGC	CAG	GGA	TCC	CTG	GTC	ACC	405
121	V	Y	G	A	P	R	N	W	G	Q	G	S	L	V	T	135
406	GTC	TCC	TCA	GCC	TCC	ACC	AAG	GGC	CCA	AAG	CTT	GAA	GAA	GTC	GAA	450
136	V	S	S	A	S	T	K	G	P	K	L	E	E	G	E	150
451	TTT	TCA	GAA	GCA	CGC	GTA	CAG	TCT	GTG	TTG	ACT	CAG	CCG	CCC	TCA	495
151	F	S	E	A	R	V	Q	S	V	L	T	Q	P	P	S	165
496	GTG	TCT	GGC	GCC	CCA	GGG	CAG	AAG	GTC	ACC	ATC	TCC	TGC	TCT	GGG	540
166	V	S	S	A	A	P	G	Q	K	V	T	I	S	C	S	180
541	AGC	AGC	TCC	AAC	ATT	GGA	AAAT	ATAT	GTC	TCC	TGG	TAC	GTT	CAA	585	
181	S	S	S	N	I	G	N	N	Y	V	S	W	Y	V	Q	195
586	CTC	CCA	GGG	ACA	GCC	CCC	AAA	CTC	CTC	ATT	TAT	GAC	AAAT	AAAT	AGG	630
196	L	P	G	T	A	F	K	L	L	I	Y	D	N	N	K	210
631	CGA	TTC	TCA	GGG	GTT	CCT	GAC	CGA	TTC	TCT	GGC	TCC	AAG	TCT	GGC	675
211	R	F	S	G	V	P	D	R	F	S	G	S	K	S	G	225
676	ACG	TCA	GCC	ACC	CTG	GGC	ATC	ACC	GGG	CTC	CAG	ACT	GGG	GAC	GAG	720
226	T	S	A	T	L	G	I	T	G	L	Q	T	G	D	E	240

Figure 25A

Replacement Sheet

721	GCC GAT TAT TAC TGC GGA GCA TGG GAT GGC AGC CTG CGT GAA GCG	765
241	A D Y Y C G A W D G S L R E A	255
766	GTA TTC GGC GGA GGG ACC AAG GTC ACC GTC CTA GGT GCG GCC GCA	810
256	V F G G G T K V T V L G A A A	270
811	GTT GAG CTC GAG GCG GCG GAT TAC AAA GAC GAT GAC GAT AAA	855
271	V E L E A A A D Y K D D D D K	285
856	GAA TTC GGA ACC TCT GAG GAA ACC ATT TCT ACA GTT CAA GAA AAG	900
286	E F G T S E E T I S T V Q E K	300
901	CAA CAA AAT ATT TCT CCC CTA GTG AGA GAA AGA GGT CCT CAG AGA	945
301	Q Q N I S P L V R E R G P Q R	315
946	GTA GCA GCT CAC ATA ACT GGG ACC AGA GGA AGA AGC AAC ACA TTG	990
316	V A A H I T G T R G R S N T L	330
991	TCT TCT CCA AAC TCC AAG AAT GAA AAG GCT CTG GGC CGC AAA ATA	1035
331	S S N S K N E K A L G R K I	345
1036	AAC TCC TGG GAA TCA TCA AGG AGT GGG CAT TCA TTC CTG AGC AAC	1080
346	N S W E S S R S G H S F L S N	360
1081	TTG CAC TTG AGG AAT GGT GAA CTG GTC ATC CAT GAA AAA GGG TTT	1125
361	L H L R N G E L V I H E K G F	375
1126	TAC TAC ATC TAT TCC CAA ACA TAC TTT CGA TTT CAG GAG GAA ATA	1170
376	Y Y I Y S Q T Y F R F Q E E I	390
1171	AAA GAA AAC ACA AAG AAC GAC AAA CAA ATG GTC CAA TAT ATT TAC	1215
391	K E N T K N D K Q M V Q Y I Y	405
1216	AAA TAC ACA AGT TAT CCT GAC CCT ATA TTG TTG ATG AAA AGT GCT	1260
406	K Y T S Y P D P I L L M K S A	420
1261	AGA AAT AGT TGT TGG TCT AAA GAT GCA GAA TAT GGA CTC TAT TCC	1305
421	R N S C W S K D A E Y G L Y S	435
1306	ATC TAT CAA GGG GGA ATA TTT GAG CTT AAG GAA AAT GAC AGA ATT	1350
436	I Y Q G G I F E L K E N D R I	450
1351	TTT GTT TCT GTA ACA AAT GRG CAC TTG ATA GAC ATG GAC CAT GAA	1395
451	F V S V T N E H L I D M D H E	465
1396	GCC AGT TTT TTC GGG GCC TTT TTA GTT GGC GGT GGC GGT TCT GGT	1440
466	A S F G A F L V G G G G S G	480
1441	GCG GGT TCT GGT GGC GGT TCT GGT GGC GGA TCA ACC TCT GAG GAA	1485
481	G G S G G G S G G G S T S E E	495
1486	ACC ATT TCT ACA GTT CAA GAA AAG CAA CAA AAT ATT TCT CCC CTA	1530
496	T I S T V Q E K Q Q N I S P L	510
1531	GTC AGA GAA AGA GGT CCT CAG AGA GTA GCA GCT CAC ATA ACT GGG	1575
511	V R E R G P Q R V A A H I T G	525

Figure 25B

Replacement Sheet

1576	ACC AGA GGA AGA AGC AAC ACA TTG TCT TCT CCA AAC TCC AAG ATT	1620
526	T R G R S N T L S S P N N S K N	540
1621	GAA AAG GCT CTG GGC CGC AAA ATA AAC TCC TGG GAA TCA TCA AGG	1665
541	E K A L G R K I N S W E S S R	555
1666	AGT GGG CAT TCA TTC CTG AGC AAC TTG CAC TTG AGG ATT GGT GAA	1710
556	S G H S F L S N L H L R N G E	570
1711	CTG GTC ATC CAT GAA AAA GGG TTT TAC TAC ATC TAT TCC CAA ACA	1755
571	L V I H E K G F Y Y I Y S Q T	585
1756	TAC TTT CGA TTT CGG GAG GAA ATA AAA GAA AAC ACA AAG AAC GAC	1800
586	Y F R F Q E E I K E N T K N D	600
1801	AAA CAA ATG GTC CAA TAT ATT TAC AAA TAC ACA AGT ATT CCT GAC	1845
601	K Q M V Q Y I Y K Y T S Y P D	615
1846	CCT ATA TTG TTG ATG AAA AGT GCT AGA ATT AGT TGT TGG TCT AAA	1890
616	P I L M K S A R N S C W S K	630
1891	GAT GCA GAA TAT GGA CTC TAT TCC ATC ATT CAA GGG GGA ATA TTT	1935
631	D A E Y G L Y S I Y Q G G I F	645
1936	GAG CTT AAG GAA ATT GAC AGA ATT TTT GTT TCT GTA ACA ATT GAG	1980
646	E L K E N D R I F V S V T N E	660
1981	CAC TTG ATA GAC ATG GAC CAT GAA GCC AGT TTT TTC GGG GCC TTT	2025
661	H L I D M D H E S F F G A F	675
2026	TTA GTT GGC GGT GGC GGT TCT GGT GGC GGT TCT GGT GGC GGT TCT	2070
676	L V G G G G S G G G S G G G S	690
2071	GCT GGC GGA TCC ACC TCT GAG GAA ACC ATT TCT ACA GTT CAA GAA	2115
691	G G G S T S E E T I S T V Q E	705
2116	AAG CAA CAA ATT ATT TCT CCC CTA GTG AGA GAA AGT CCT CAG	2160
706	K Q Q N I S P L V R E R G P Q	720
2161	AGA GTA GCA GCT CAC ATA ACT GGG ACC AGA GGA AGA AGC AAC ACA	2205
721	R V A A H I T G T R G R S N T	735
2206	TTG TCT TCT CCA AAC TCC AAC ATT GAA AGG GCT CTG GGC CGC AAR	2250
736	L S S P N S K N E B K A L G R K	750
2251	ATA AAC TCC TGG GAA TCA TCA AGG AGT GGG CAT TCA TTC CTG AGC	2295
751	I N S W E S S R S G H S F L S	765
2296	AAC TTG CAC TTG AGG ATT GGT GAA CTG GTC ATC CAT GAA AAA GGG	2340
766	N L H L R N G E L V I H E K G	780
2341	TTT TAC TAC ATC ATT TCC CAA ACA TAC ATT GGA ATT CAG GAG GAA	2385
781	F Y Y I Y S Q T Y F R F Q E E	795
2386	ATA AAA GAA AAC ACA AAG AAC GAC AAA CAA ATG GTC CAA ATT ATT	2430
796	I K E N T K N D K Q M V Q Y I	810

Figure 25C

Replacement Sheet

2431	TAC	AAA	TAC	ACA	AGT	TAT	CCT	GAC	CCT	ATA	TTG	TTG	ATG	AAA	AGT	2475
811	Y	K	Y	T	S	Y	P	D	P	I	L	L	M	K	S	825
2476	GCT	AGA	AAT	AGT	TGT	TGG	TCT	AAA	GAT	GCA	GAA	TAT	GGA	CTC	TAT	2520
826	A	R	N	S	C	W	S	K	D	A	E	Y	G	L	Y	840
2521	TCC	ATC	TAT	CAA	GGG	GGA	ATA	TTT	GAG	CTT	AAG	GAA	ATAT	GAC	AGA	2565
841	S	I	Y	Q	G	G	I	F	E	L	K	E	N	D	R	855
2566	ATT	TTT	GTT	TCT	GTA	ACA	AAT	GAG	CAC	TTG	ATA	GAC	ATG	GAC	CAT	2610
856	I	F	V	S	V	T	N	E	H	L	I	D	M	D	H	870
2611	GAA	GCC	AGT	TTT	TTC	GGG	GCC	TTT	TTA	GTT	GGC	TGA				2646
871	E	A	S	F	F	G	A	F	L	V	G	*				881

Figure 25D

Replacement Sheet

Nucleic acid sequence and corresponding amino acid sequence of scTNF-AMAIze Construct H

1	ATG	GAC	TGG	ACC	TGG	CGC	GTG	TTT	TGC	CTG	CTC	GCC	GTG	GCT	CCT	45
1	M	D	W	T	W	R	V	F	C	L	L	A	V	A	P	15
46	GGG	GCC	CAC	AGC	CAG	GTA	CAG	CTG	GTG	CAG	TCT	GGG	GGA	GCG	ATG	90
46	G	A	H	S	Q	V	Q	L	V	Q	S	G	G	G	M	30
91	GTA	GAG	CCT	GGG	GGG	TCC	CTT	AGA	CTC	TCC	TGT	GCA	GCC	TCT	GGA	135
31	V	E	P	G	G	S	L	R	L	S	C	A	A	S	G	45
136	TTC	ACT	TTC	AGT	AAT	GCC	TGG	ATG	AGC	TGG	GTC	CGC	CAG	GCT	CCA	180
46	F	T	F	S	N	A	W	M	S	W	V	R	Q	A	P	60
181	GGG	AAG	GGG	CTG	GAG	TGG	GTT	GGC	CGT	ATA	AAA	AGC	AAA	GCT	GGT	225
61	G	K	G	L	E	W	V	G	R	I	K	S	K	A	G	75
226	GGT	GGG	ACA	GCA	GAG	TAC	GCT	GCA	CCC	GTG	AAA	GGC	AGA	TTC	ACC	270
76	G	G	T	A	E	Y	A	A	P	V	K	G	R	F	T	90
271	ATC	TCA	AGA	GAT	GAT	TCA	CAA	AAC	ACG	CTG	TAT	CTG	CAA	ATG	ARC	315
91	I	S	R	D	D	S	Q	N	T	L	Y	L	Q	M	N	105
316	AGC	CTG	AAA	ACC	GAC	GAC	ACA	GCC	GTG	TAT	TAC	TGT	ACC	ACA	CAT	360
106	S	L	K	T	D	D	T	A	V	Y	Y	C	T	T	H	120
361	GTC	TAC	GGT	GCC	CCC	CGG	AAC	TGG	GGC	CAG	GGA	TCC	CTG	GTC	ACC	405
121	V	Y	G	A	P	R	N	W	G	Q	G	S	L	V	T	135
406	GTC	TCC	TCA	GCC	TCC	ACC	AAG	GGC	CCA	AAG	CTT	GAA	GAA	GGT	GAA	450
136	V	S	S	A	S	T	K	G	P	K	L	E	E	G	E	150
451	TTT	TCA	GAA	GCA	CGC	GTA	CAG	TCT	GTG	TTG	ACT	CAG	CCG	CCC	TCA	495
151	F	S	E	A	R	V	Q	S	V	L	T	Q	P	P	S	165
496	GTG	TCT	GGC	GCC	CCA	GGA	CAG	AAG	GTC	ACC	ATC	TCC	TGC	TCT	GGA	540
166	V	S	A	P	G	Q	K	V	T	I	S	C	S	G		180
541	AGC	AGC	TCC	AAC	ATT	GGA	AAT	AAT	TAT	GTC	TCC	TGG	TAC	GTT	CAA	585
181	S	S	S	N	I	G	N	N	Y	V	S	W	Y	V	Q	195
586	CTC	CCA	GGA	ACA	GCC	CCC	AAA	CTC	CTC	ATT	TAT	GAC	AAT	AAT	AAG	630
196	L	P	G	T	A	P	K	L	L	I	Y	D	N	N	K	210
631	CGA	TTC	TCA	GGA	GTT	CCT	GAC	CGA	TTC	TCT	GGC	TCC	AAG	TCT	GGC	675
211	R	F	S	G	V	P	D	R	F	S	G	S	K	S	G	225
676	ACG	TCA	GCC	ACC	CTG	GGC	ATC	ACC	GGG	CTC	CAG	ACT	GGG	GAC	GAG	720
226	T	S	A	T	L	G	I	T	G	L	Q	T	G	D	E	240
721	GCC	GAT	TAT	TAC	TGC	GGA	GCA	TGG	GAT	GGC	AGC	CTG	CGT	GAA	GCG	765
241	A	D	Y	Y	C	G	G	A	W	D	G	S	L	R	E	255

Figure 26A

Replacement Sheet

256	GTA	TTC	GCG	GGA	GGG	ACC	AAG	GTC	ACC	GTC	CTA	GGT	GCG	GCC	GCA	810
	V	F	G	G	G	T	K	V	T	V	L	G	A	A	A	270
286	GTT	GAG	CTC	GAG	GCG	GCC	GCG	GAT	TAC	AAA	GAC	GAT	GAC	GAT	AAA	855
271	V	E	D	E	A	A	A	D	Y	K	D	D	D	D	K	285
286	GAA	TTC	GGA	TCA	TCT	TCT	CGA	ACC	CGG	AGT	GAC	RAG	CCT	GTA	GCC	900
	E	F	G	S	S	S	R	T	P	S	D	K	P	V	A	300
301	CAT	GTT	GTA	GCA	AAC	CCT	CAA	GCT	GAG	GGG	CAG	CTC	CAG	TGG	CTG	945
301	H	V	V	A	N	P	Q	A	E	G	Q	L	Q	W	L	315
316	AAC	CGC	CGG	GCC	RAT	GCC	CTC	CTG	GCC	AAT	GGC	GTG	GAG	CTG	AGA	990
	N	R	R	A	N	A	L	L	A	N	G	V	E	L	R	330
331	GAT	AAC	CAG	CTG	GTG	GTG	CCA	TCA	GAG	GGC	CTG	TAC	CTC	ATC	TAC	1035
	D	N	Q	L	V	V	P	S	E	G	L	Y	L	I	Y	345
346	TCC	CAG	GTC	CTC	TTC	AAG	GGC	CAA	GGC	TGC	CCC	TCC	ACC	CAT	GTG	1080
	S	Q	V	L	F	K	G	Q	G	C	P	S	T	H	V	360
361	CTC	CTC	ACC	CAC	ACC	ATC	AGC	CGC	ATC	GCC	GTC	TCC	TAC	CAG	ACC	1125
	L	L	T	H	T	I	S	R	I	A	V	S	Y	Q	T	375
376	AAG	GTC	AAC	CTC	CTC	TCT	GCC	ATC	AAG	AGC	CCC	TGC	CAG	AGG	GAG	1170
	K	V	N	L	L	S	A	I	K	S	P	C	Q	R	E	390
391	ACC	CCA	GAG	GGG	GCT	GNR	GCC	AAG	CCC	TGG	TAT	GAG	CCC	ATC	TAT	1215
	T	P	E	G	A	E	A	K	P	W	Y	E	P	I	Y	405
406	CTG	GGA	GGG	GTC	TTC	CGG	CTG	GAG	AAG	GGT	GAC	CGA	CTC	AGC	GCT	1260
	L	G	G	V	F	Q	L	E	K	G	D	R	L	S	A	420
421	GAG	ATC	AAT	CGG	CCC	GAC	TAT	CTC	GAC	TTT	GCC	GAG	TCT	GGG	CAG	1305
	E	I	N	R	P	D	Y	L	D	F	A	E	S	G	Q	435
436	GTC	TAC	TTT	GGG	ATC	ATT	GCC	CTG	GGT	GGC	GGT	TCT	GGT	GCC	GGT	1350
	V	Y	F	G	I	I	A	L	G	G	G	S	G	G	G	450
451	TCT	GGT	GGC	GGT	TCT	GGT	GGC	GGA	TCA	TCA	TCT	TCT	CGA	ACC	CCG	1395
	S	G	G	G	S	G	G	G	S	S	S	S	R	T	P	465
466	AGT	GAC	AAG	CCT	GTA	GCC	CAT	GTT	GTA	GCA	AAC	CCT	CAA	GCT	GAG	1440
	S	D	K	P	V	A	H	V	V	A	N	P	Q	A	E	480
481	GGG	CAG	CTC	CAG	TGG	CTG	AAC	CGC	CGG	GCC	AAT	GCC	CTC	CTG	GCC	1485
	G	Q	L	Q	W	L	N	R	R	A	N	A	L	L	A	495
496	AAT	GGC	GTG	GAG	CTG	AGA	GAT	AAC	CAG	CTG	GTG	GTG	CCA	TCA	GAG	1530
	N	G	V	E	L	R	D	N	Q	L	V	V	P	S	E	510
511	GGC	CTG	TAC	CTC	ATC	TAC	TCC	CAG	GTC	CTC	TTC	AAG	GGC	CAA	GGC	1575
	G	L	Y	L	I	Y	S	Q	V	L	F	K	G	Q	G	525
526	TGC	CCC	TCC	ACC	CAT	GTG	CTC	CTC	ACC	CAC	ACC	ATC	AGC	CGC	ATC	1620
	C	P	S	T	H	V	L	L	T	H	T	I	S	R	I	540

Figure 26B

Replacement Sheet

1621	GCC	GTC	TCC	TAC	CAG	ACC	AAG	GTC	AAC	CTC	CTC	TCT	GCC	ATC	ATG	1665
541	A	V	S	Y	Q	T	K	V	N	L	L	S	A	I	K	555
1666	AGC	CCC	TGC	CAG	AGG	GAG	ACC	CCA	GAG	GGG	GCT	GAG	GCC	AAG	CCC	1710
556	S	P	C	Q	R	E	T	P	E	G	A	E	A	K	P	570
1711	TGG	TAT	GAG	CCC	ATC	TAT	CTG	GGA	GGG	GTC	TTC	CAG	CTG	GAG	AAG	1755
571	W	Y	E	P	I	Y	L	G	G	V	F	Q	L	E	K	585
1756	GGT	GAC	CGA	CTC	AGC	GCT	GAG	ATC	AAT	CGG	CCC	GAC	TAT	CTC	GAC	1800
586	G	D	R	L	S	A	E	I	N	R	P	D	Y	L	D	600
1801	TTT	GCC	GAG	TCT	GGG	CAG	GTC	TAC	TTT	GGG	ATC	ATT	GCC	CTG	GGT	1845
601	F	A	E	S	G	Q	V	Y	F	G	I	I	A	L	G	615
1846	GGC	GGT	TCT	GGT	GGC	GGT	TCT	GGT	GGC	GGT	TCT	GGT	GGC	GGA	TCA	1890
616	G	G	S	G	G	S	G	G	G	S	G	G	G	G	S	630
1891	TCA	TCT	TCT	CGA	ACC	CCG	AGT	GAC	AAG	CCT	GTA	GCC	CAT	GTT	GTA	1935
631	S	S	S	R	T	P	S	D	K	P	V	A	H	V	V	645
1936	GCA	AAC	CCT	CAA	GCT	GAG	GGG	CAG	CTC	CAG	TGG	CTG	AAC	CGC	CGG	1980
646	A	N	P	Q	A	E	G	Q	L	Q	W	L	N	R	R	660
1981	GCC	AAT	GCC	CTC	CTG	GCC	AAT	GGC	GTG	GAG	CTG	AGA	GAT	AAC	CAG	2025
661	A	N	A	L	L	A	N	G	V	E	L	R	D	N	Q	675
2026	CTG	GTG	GTG	CCA	TCA	GAG	GCC	CTG	TAC	CTC	ATC	TAC	TCC	CAG	GTC	2070
676	L	V	V	P	S	E	G	L	Y	L	I	Y	S	Q	V	690
2071	CTC	TTC	AAAG	GGC	CAA	GGC	TGC	CCC	TCC	ACC	CAT	GTG	CTC	CTC	ACC	2115
691	L	F	K	G	Q	G	C	P	S	T	H	V	L	L	T	705
2116	CAC	ACC	ATC	AGC	CGC	ATC	GCC	GTC	TCC	TAC	CAG	ACC	AAG	GTC	AAC	2160
706	H	T	I	S	R	I	A	V	S	Y	Q	T	K	V	N	720
2161	CTC	CTC	TCT	GCC	ATC	AAG	AGC	CCC	TGC	CAG	AGG	GAG	ACC	CCA	GAG	2205
721	L	L	S	A	I	K	S	P	C	Q	R	E	T	P	E	735
2206	GGG	GCT	GAG	GCC	AAG	CCC	TGG	TAT	GAG	CCC	ATC	TAT	CTG	GGA	GGG	2250
736	G	A	E	A	K	P	W	Y	E	P	I	Y	L	G	G	750
2251	GTC	TTC	CAG	CTG	GAG	AAG	GGT	GAC	CGA	CTC	AGC	GCT	GAG	ATC	AAT	2295
751	V	F	Q	L	E	K	G	D	R	L	S	A	E	I	N	765
2296	CGG	CCC	GAC	TAT	CTC	GAC	TTT	GCC	GAG	TCT	GGG	CAG	GTC	TAC	TTT	2340
766	R	P	D	Y	L	D	F	P	A	E	S	G	Q	V	Y	780
2341	GGG	ATC	ATT	GCC	CTG	TGA	*									2358
781	G	I	I	A	L	*										785

Figure 26C